



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

MEMORANDUM

DATE: October 8, 1982

TO: Del Haschemeyer, Deputy Director

FROM: Roger Selburg, Manager, Permit Section, DPWS

SUBJECT: Madison Co - Granite City - Taracore & St. Louis
Battery Recyclers

EPA Region 5 Records Ctr.



257714

Data from DPWS files on lead content in the Granite City public water supply indicates no problems at the sites of sample collection. Lead contamination of the public water supply should not be a problem as raw water for the treatment plant is obtained from the Mississippi River at the Greenau Island intake, some 10 miles to the north.

One possible route of lead contamination could be through the distribution system, should water main breaks occur. However, operation of the supply by the Illinois-American Water Company, has been such that adequate pressures are being maintained throughout the system. Further, repairs of the distribution system by that company are normally made in a timely manner and in such a way as to minimize the entrance of foreign material into the water main.

As mentioned in the October 1, 1982 Agency Pre-enforcement meeting, the site is located over an extensive sand and gravel aquifer known as the American Bottoms. At the Granite City location, the aquifer depth is estimated at 120' with sand from near the surface to the 120' bed rock depth.

The Illinois State Water Survey (SWS) is doing a contract report for the Corps of Engineers (COE) in conjunction with the U.S. Geological Survey (USGS) to determine ground water levels, ground water movements, quantities of water pumped from industrial wells, etc. At the same time, USGS is collecting water samples from certain select wells for analyses which will include metals and organics.

Joe Ritchey, SWS (217/333-8497) is the project coordinator and has recent information and other unpublished data available. He is to send this to me and I will pass it along to DLPC.

According to Ritchey, Granite City Steel is pumping 3.6 mgd from the 3 Rainey wells. Nestle Co (0.8 miles north & east) is pumping 0.13 mgd from 1 well. ADM is pumping 0.11 mgd from 1 well. Other industrial wells in the area are owned by General Steel Casting Co., Consolidated Aluminium Co, Aero-Dressel Foods (Food Processor). However, these wells have not been used since 1973-75.

The hydro-geological information to be sent by SWS should be sufficient to allow for determination of ground water movement, direction, velocity of movement, etc. If this proves too cumbersome, SWS has recently developed a model which will allow for these determinations to be made. If there is a decision to involve other state agencies, this type of support would be valuable.

The initial reaction of Jim Gibb, SWS, was heads up the agency which investigates ground water contamination problems was that the probability of contamination is very high. Although USGS will collect water samples in the general area, samples should not be taken in the area of concern, further, a considerable time delay can be expected for the analyses.

State Water Survey Division

ENR



Water Resources Building
605 East Springfield Avenue
P.O. Box 5050, Station A
Champaign, Illinois 61820 9050
217/333-2211

Illinois Department of
Energy and Natural Resources

October 12, 1982

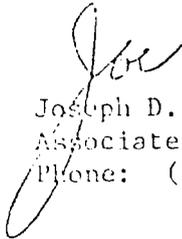
Roger Selburg
Illinois EPA
Division of Public Water Supply
2200 Churchill Road
Springfield, IL 62706

Dear Roger:

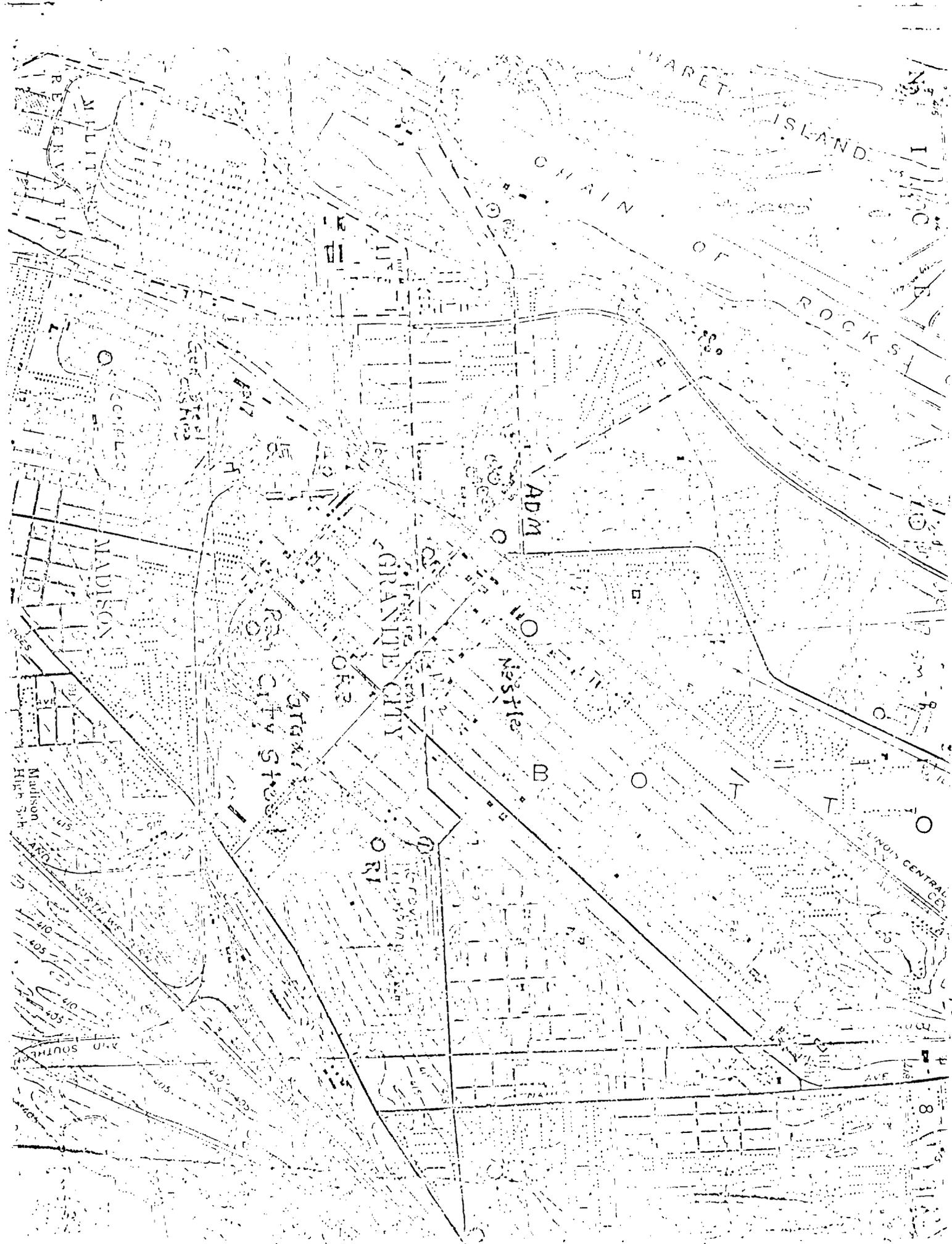
As per our conversation on Friday the 8th, I have enclosed some information for use in your study of groundwater movement in the Granite City area. Enclosures include; a photo copy of the Granite City area from USGS topographical maps, three hydrographs of State Water Survey observation wells (Corps RI-18, SWS P3B and Granite City steel blast furnace #1), a preliminary November, 1980 piezometric surface map, SWS circular 134, (Groundwater Levels and Pumpage in the East St. Louis area, IL, 1972-1977), and the first five pages of an SWS study entitled "The Effects of Precipitation Scavenging of Airborne and Surface Pollutants on Surface and Groundwater Quality in Urban Areas."

If you have any questions about this material or need any further assistance, please contact me.

Sincerely,
ILLINOIS STATE WATER SURVEY


Joseph D. Ritchey
Associate Hydrologist
Phone: (217) 333-8497

JDR:lw
enc.



MARET ISLAND

CHAIN OF ROCKS

GRANITE CITY

MADISON

STATION
CITY ST

ADM

Nestle

MADISON
High Sch

LINCOLN CENTRAL

AND SOUTH

AVE

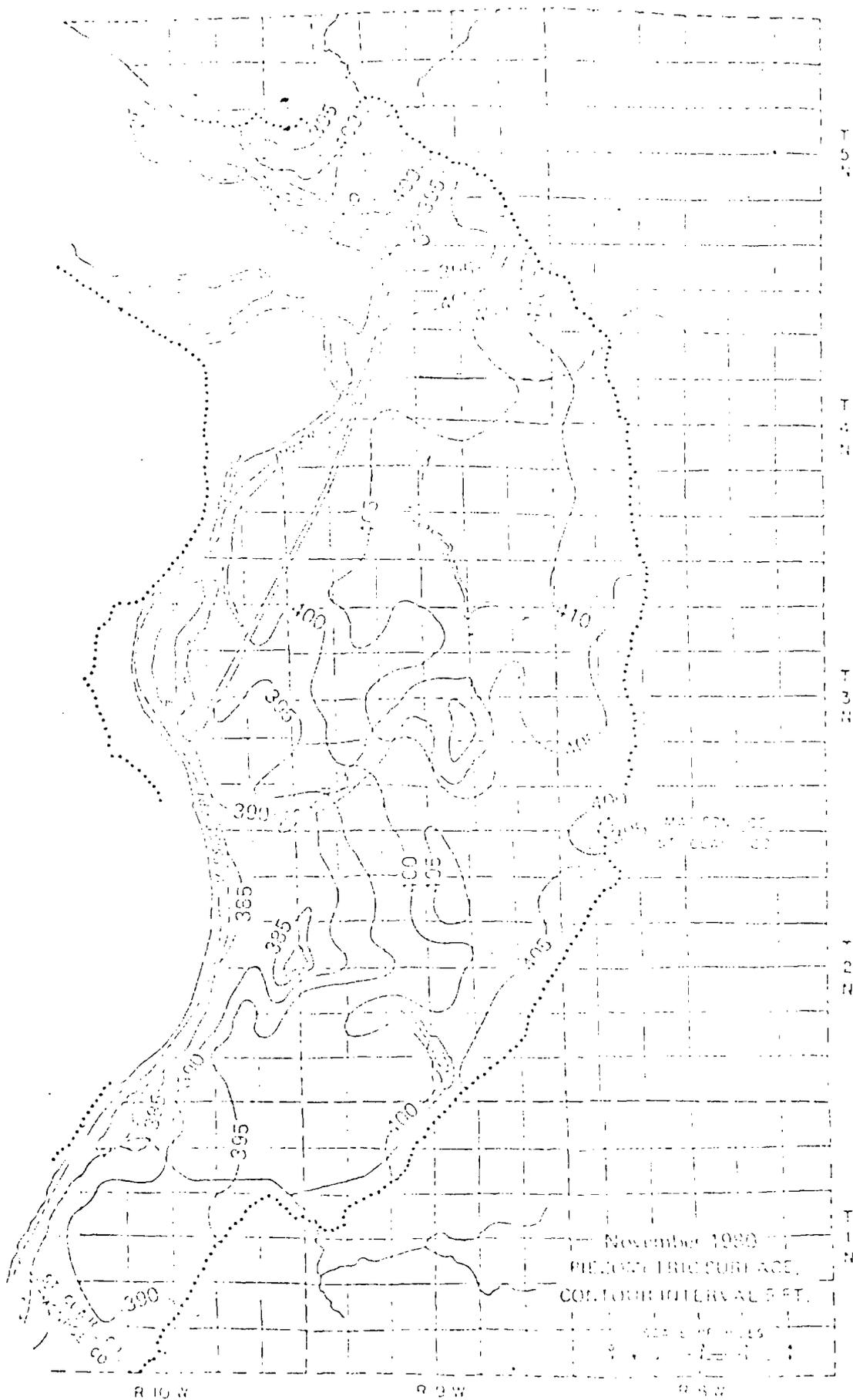
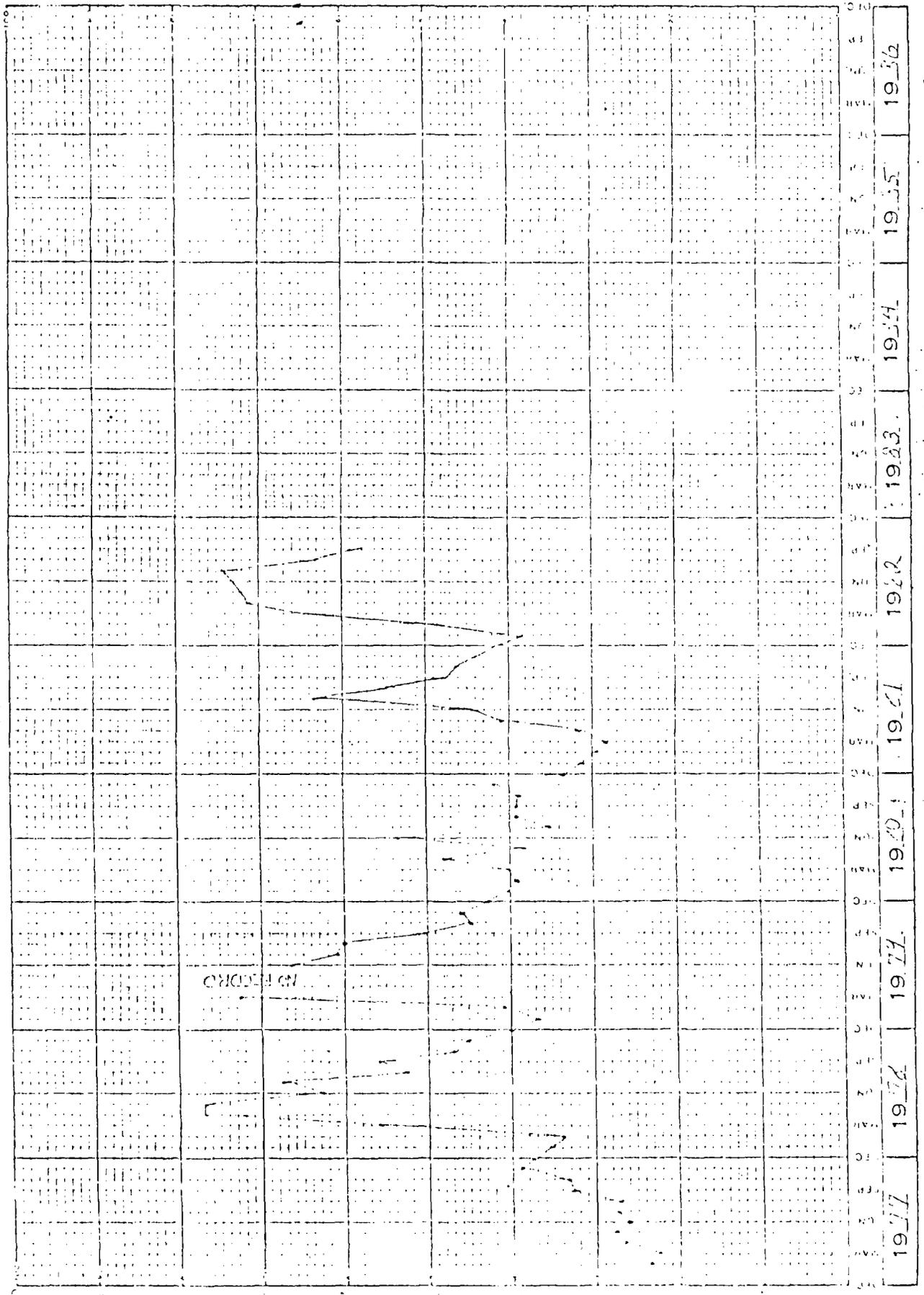


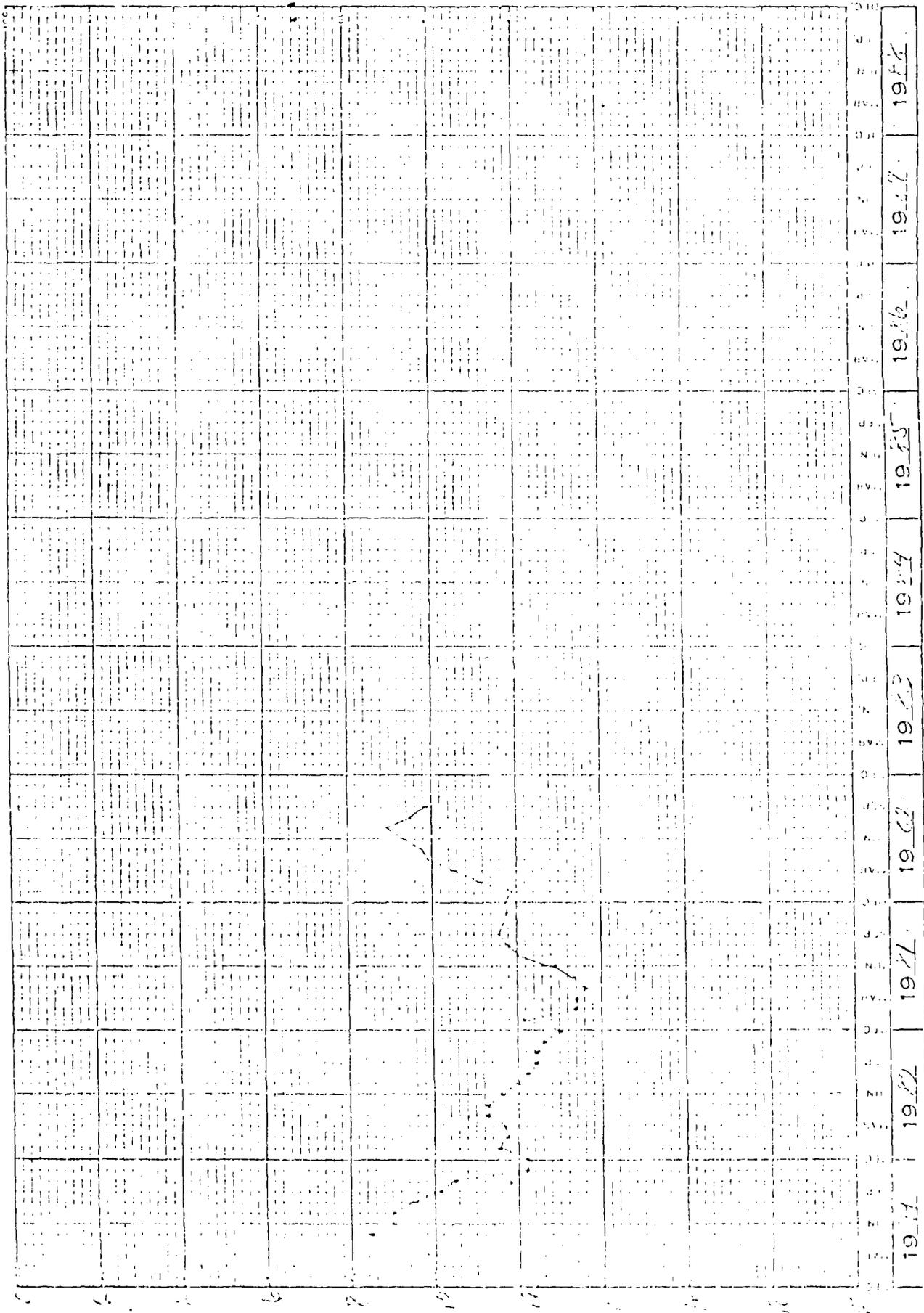
Figure 30. Approximate elevation of piezometric surface (preliminary) November 1980.

Camp of Engineers No. 16 - RFD 51100-14-1
 Elevation 11 = 410.99'



13B (3.15 #5)
Elevation 10. (= 415')

14110-8.52
Recorder



110236 NW-1/4-10-20

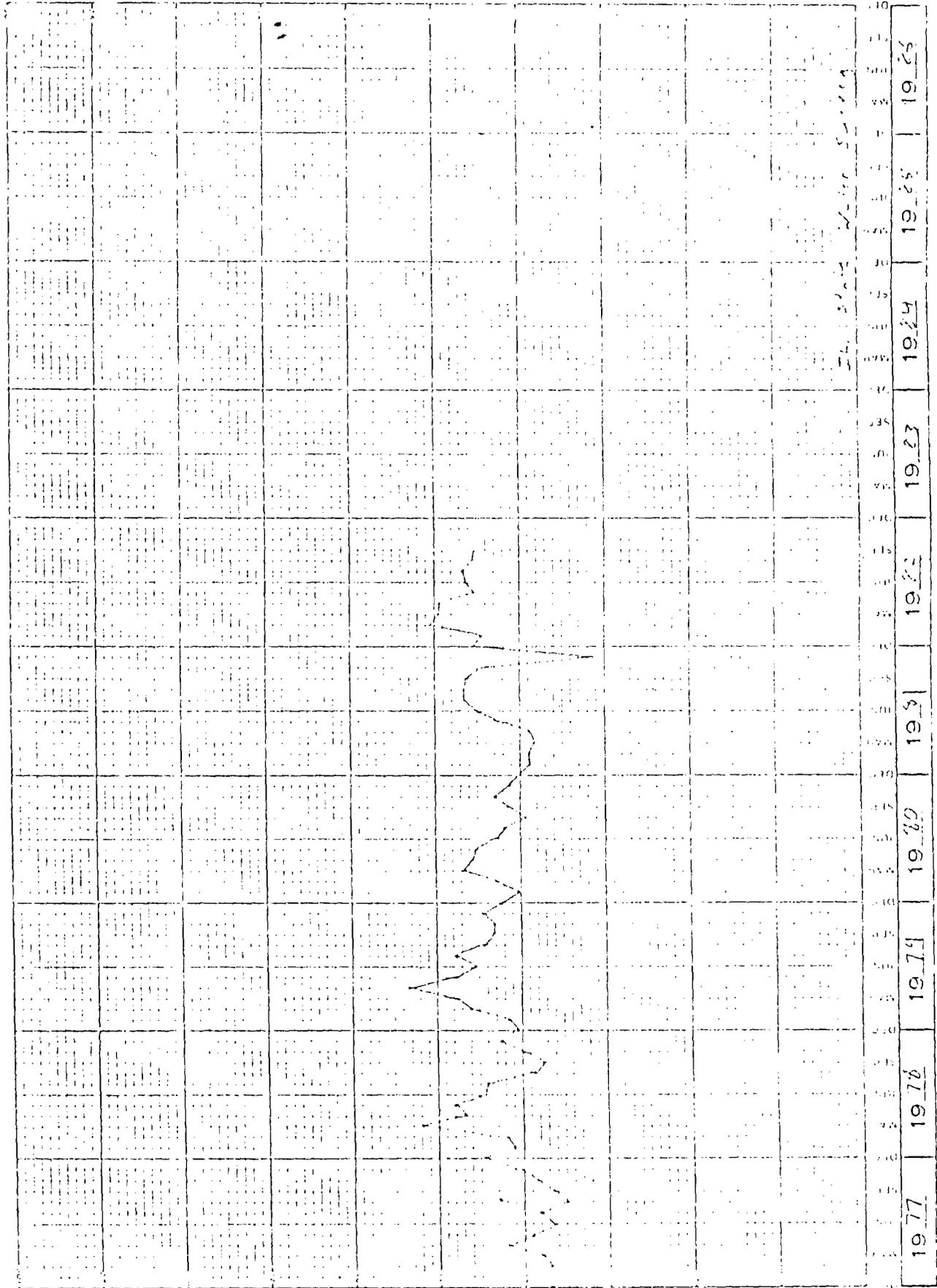
Elevation East: 411.67'

Recorder

Depth: 114.52'

PRINTED IN U.S.A.

GRAPH PAPER



Depth to water surface from 15d, in ft.